

What is claimed is:

1. An apparatus for cleaning a semiconductor wafer comprising:
 - a chamber on which a wafer is mounted;
 - a revolving chuck mounted in the chamber, for supporting and fixing the wafer;
 - a nozzle for spraying cleaning solution onto the wafer;
 - a cover for covering an upper part of the chamber;
 - a heating lamp fixed on an upper part of the cover, for heating the wafer or the cleaning solution;
 - a cooling water conduit for surrounding the cover; and
 - an antipollution plate mounted on a lower part of the heating lamp in the cover, for preventing the heating lamp from being polluted by the cleaning solution.
2. The apparatus according to claim 1, wherein the heating lamp is an ultraviolet or an infrared lamp.
3. The apparatus according to claim 1, wherein the heating lamp is a rod-shaped lamp having a length equal to the radius of the wafer.
4. The apparatus according to claim 1, wherein the antipollution plate is made of transparent quartz or sapphire.
5. The apparatus according to claim 1, wherein the cleaning solution is ozone water, hydrogen water, or electrolytic-ionized water.
6. An apparatus for cleaning a semiconductor wafer comprising:
 - a chamber on which a wafer is mounted;
 - a revolving chuck mounted in the chamber, for supporting and fixing the wafer;
 - a nozzle for spraying cleaning solution onto the wafer;
 - a cover for covering an upper part of the chamber;
 - a laser fixed on an upper part of the cover, for heating the wafer or the cleaning solution; and

a focusing lens for condensing a beam emitted from the laser onto the wafer.

7. The apparatus according to claim 6 further comprising an antipollution plate mounted on a lower part of the focusing lens in the cover for preventing the focusing lens from being polluted by the cleaning solution.

8. The apparatus according to claim 7, wherein the antipollution plate is made of transparent quartz or sapphire.

9. The apparatus according to claim 6, wherein the laser is an ultraviolet, an infrared, or a visible ray laser.

10. The apparatus according to claim 6, wherein the cleaning solution is ozone water, hydrogen water, or electrolytic-ionized water.

11. A method for cleaning a wafer using an apparatus for cleaning a semiconductor wafer according to claim 1, the method comprising:
rotating the wafer at a predetermined speed;
spraying cleaning solution onto the wafer through a nozzle;
heating the wafer or the cleaning solution by a heating lamp; and
cleaning the wafer.

12. A method for cleaning a wafer using an apparatus for cleaning a semiconductor wafer according to claim 6, the method comprising:
rotating the wafer at a predetermined speed;
spraying cleaning solution onto the wafer through a nozzle;
heating the wafer or the cleaning solution by a laser; and
cleaning the wafer.

13. The method according to claim 11, wherein the cleaning solution is ozone water, hydrogen water, or electrolytic-ionized water.

14. The method according to claim 12, wherein the cleaning solution is ozone water, hydrogen water, or electrolytic-ionized water.